Application Number

First Named Inventor

Filing Date

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Evgueni Goldberg

Complete If Known 10/789,810

02/27/2004

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2129 Dmar F. Fernandez Rivas CA7031042001 Attorney Docket Number

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Examiner	Cite No.1	Document Number	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
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FOREIGN PATENT DOCUMENTS								
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Substitute for	r form 1449B/I	PTO		Complete if Known		
				Application Number	10/789,810	
			CLOSURE	Filing Date	02/27/2004	
STATE	MENT	BY AP	PLICANT	First Named Inventor	Evgueni Goldberg	
			•	Art Unit	2129	
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Sheet	2	of	3	Attorney Docket Number	CA7031042001	

		NON PATENT LITERATURE DOCUMENTS					
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.					
OFR	2	BAPTISTA, L. et al.; "The Interplay of Randomization and Learning of Real-World Instances of Satisfiability"; Proceedings of the AAAI Workshop on Leveraging Probability and Uncertainty in Computation; July 2000.					
OFR	3	BAYARDO, R. et al.; "Using CSP Look-Back Techniques to Solve Real-World SAT Instances"; Proceedings of the Fourteenth National Conference on Artificial Intelligence and Ninth Innovative Applications of Artificial Intelligence Conference; 1997; pp. 203-208; American Association for Artificial Intelligence Press; USA.					
OFR	4	BEN-SASSON, E. et al.; "Near-Optimal Separation of Treelike and General Resolution"; Electronic Colloquium on Computational Complexity, Report No. 5; Third Workshop on the Satisfiability Problem - May 2000; January 17, 2000; pp. 14 - 18; ECCC; Israel.					
OFR	5	BIERE, A., et al.; "Symbolic Model Checking Using SAT Procedures Instead of BDDs"; Proceedings of Design Automation Conference - DAC'99; 1999; pp. 317 - 320; ACM; USA.					
OFR	6	BRAYTON, R.K., et al., "Logic Minimization Algorithms for VLSI Synthesis", Kluwer Academic Publishers, 1984; USA.					
OFR	7	BURCH, J. R., et al.; "Tight Integration of Combination Verification Methods"; Proceedings of the International Conference on Computer-Aided Design; 1998; pp. 570 - 576; ACM, USA.					
OFR	8	DAVIS, M., et al.; "A Machine Program for Theorem-Proving"; Communications of the ACM; 1962; pp. 394 - 397; USA.					
OFR	9.	DUBOIS, O., et al.; "SAT versus UNSAT"; Second DIMACS Series in Discrete Mathematics and Theoretical Computer Science; 1996; pp. 415 - 436; Volume 26; American Mathematical Society.					
OFR	10	FREEMAN, J.W.; "Improvements to Propositional Satisfiability Search Algorithms", A Dissertation in Computer and Information Science, University of Pennsylvania, 1995; 1995; USA.					
OFR	11	GOLDBERG, E. et al.; "Using SAT for Combinational Equivalence Checking"; Proceedings of the Design Automation and Test in Europe Conference - 2001; 2001; pp. 114 - 121; IEEE; USA.					
OFR	12	GOMES, C. P., et al.; "Boosting Combinatorial Search Through Randomization", Proceedings of the International Conference on Principles and Practice of Constraint Programming; 1998; pp. 431 - 437; American Association for Artificial Intelligence Press/ The MIT Press; USA.					
OFR	13	GOMES; C. P., et al.; "Heavy-Tailed Distributions in Combinatorial Search"; Principles and Practice of Constraint Programming - CP97; 1997; pp. 121 - 135; Springer.					
OFR	14	LI, C. M.; "A Constraint-Based Approach to Narrow Search Trees for Satisfiability"; Information Processing Letters 71; 1999; pp. 75 - 80; Volume 71; Elsevier Science B.V.; France.					
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		NON PATENT LITERAT	TURE DOCUMENTS				
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.					
OFR	15	MARQUES-SILVA, J.; "The Impact of Branching Heuristics in Propositional Satisfiability Algorithms"; Proceedings of the 9th Portuguese Conference on Artificial Intelligence (EPIA); September 1999; LNAI; pp. 62 - 74; 1695; Portugal.					
OFR	16	MARQUES-SILVA, J. P. et al.; "GRASP: A N 96; April 10, 1996; pp. 1 - 17; The University	ew Search Algoriti of Michigan; USA.	nm for Satisfiability*, CSE-TR-292-			
OFR	1.7	MARQUES-SILVA, J. P. et al.; "GRASP: A So Transactions on Computers; May 1999; pp. 5	earch Algorithm fo 06- 521; Volume	r Propositional Satisfiability"; IEEE 18; No. 5.			
OFR	18	MOSKEWICZ, M. W. et al.; "Chaff: Engineeric Design Automation Conference -DAC '01; 20	ng an Efficient SA 01; pp. 530 - 535;	T Solver; Proceedings of the 38th ACM; USA.			
OFR	19	NOVIKOV, Y. A.; "Using Restarts When Solving SAT-Instances", Proceedings of the Fourth International Conference on Computer-Aided Design of Discrete Devices CAD DD '01; 2001; pp. 166 - 174; Volume 3; National Academy of Sciences of Belarus Institute of Engineering Cybernetics; Republic of Belarus.					
OFR	20	STEPHAN, P., et al.; "Combinational Test Generation Using Satisfiability"; IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems; September 1996; pp. 1167 -1176; Volume 15; Number 9; IEEE; USA.					
OFR	21	VELEV, M. N.; Curriculum Vitae; 2004; http://www.ece.cmu.edu/~mvelev.					
OFR	22	ZHANG, H.; "SATO; An Efficient Propositional Prover"; Proceedings of the 14th International Conference on Automated Deduction - CADE- 14; July 1997; pp. 272 - 275; Springer; Australia.					
OFR	23	SATLIB - Benchmark Problems; 2004; http://www.satlib.org/benchm.html.					
OFR	OFR 24 The SAT-Ex site; 2004; http://www.lri.fr/ ~simon/satex/satex.php3.						
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